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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,695	08/06/2001	George Johan Peter Britovsek	01435.0121	8053

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Finnegan, Henderson, Farabow,
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Washington, DC 20005-3315

EXAMINER

LEE, RIPA

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 12/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,695

Applicant(s)

BRITOVSEK ET AL.

Examiner

Rip A. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 23 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 8-19 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This office action follows a response filed on September 25, 2003. Applicants have amended claims 1-23. Claims 2 and 3 have been rewritten as independent claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 2, 4-7, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,449,850 to Young *et al.* for the same reasons set forth in the previous office action.

4. Claims 1, 2, 4-7, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 91/02707 to Mathys for the same reasons set forth in the previous office action.

5. Claims 8-19 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: Claims 3 and 23 are allowed over the closest references, U.S. Patent No. 5,449,850 to Young *et al.* and WO 91/02707 to Mathys, cited above. Claim 3 is directed to a process for preparing primary alcohols. Young *et al.* contemplates primary alcohols as end use products for the process described therein, but the inventors do not elucidate steps to achieve this goal. Claim 23 is drawn to a composition comprising an alkylzinc complex in which the alkyl groups follow a Poisson or Schulz-Flory distribution. The subject matter of the claim is not taught or suggested in the cited prior art.

Response to Arguments

7. Applicants traverse the rejections of claims under 35 U.S.C. 103(a) as being unpatentable over Young *et al.* or Mathys. Applicant's arguments have been considered fully, but they are not persuasive. Applicant's arguments are based on the premise that the processes described in the prior art have nothing to do with or [do not] suggest a process for the production of zinc alkyl chain growth products.

The examiner concurs with Applicant's explanation (page 14) that the present invention is different from conventional transition metal catalyzed polymerization. And contrary to Applicant's belief, the prior art does not describe a conventional process. Here, a catalyst

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comprised of transition metal complex and dialkylzinc is used to effect oligomerization, not polymerization in the conventional sense. The ordinary artisan, conversant in polymerization catalysts and processes, would have had a reasonable basis to believe that dialkylzinc plays a role in forming oligomers since he would have realized that metal-alkyl exchange is a facile process. Therefore, the artisan would find it obvious that chain growth products derived from zinc are being formed in active the catalyst mixture.

In the previous office action, the burden was shifted to the Applicants to establish an unobviousness difference with respect to the presence of a zinc alkyl chain growth mechanism operative in the processes described in Young *et al.* or Mathys. To date, other than remarks submitted in their response, Applicants have not met this burden of proof.

In view of the discussion above, the rejections of record have not been withdrawn.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The following references teach oligomerization of olefin in the presence of dialkylzinc reagents.

U.S. Patent No. 5,557,027 to Kemp

U.S. Patent No. 5,221,774 to Wu

U.S. 2003/0119921 to DeBoer *et al.* (esp. claims 77-79)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

ral

December 5, 2003



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700